



August 2012

2011-2012 School Year Reports

Dear School Board Members and School Personnel:

This 2011-2012 MEA Summary Report contains the results of student achievement in science at grades 5 and 8, as well as disaggregations by student and school characteristics. This report, together with MEA individual student and item analysis reports, provides support for use in program evaluation and planning.

The Maine Educational Assessment (MEA) is the State's measure of student progress in achieving the State science accountability standards of Maine's *Learning Results*. The *Learning Results* contain goals for what all students should know and be able to do at certain times in their school careers and include the accountability standards that are assessed for each grade. The MEA science test is administered to students in grades 5 and 8 to meet state assessment requirements and the federal requirements of the *No Child Left Behind Act*.

MEA results reflect scores based on the common science test questions that are taken by the approximately 14,000 students in each grade level. Students' scores are based on answers to a combination of multiple-choice questions and questions that require students to construct an answer. More information about the MEA is available at www.maine.gov/education/mea/index.htm.

Thank you for your continuing commitment to improve the quality and effectiveness of the instructional opportunities in your schools. These assuredly will help all students achieve the high standards of the *Learning Results* as demonstrated on classroom, district, and state assessments.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Bowen".

Stephen L. Bowen
Commissioner of Education



Grade 8 Science State Report

Test Date: May 2012

Contents of the Report

The report is divided into three main sections including a section describing the students tested and a separate section for the content area results.

Topic	Page
Grade Level Summary	2
Science Results	3
Disaggregated Science Results	4
Questionnaire Science Results	5



May 2012 - Grade 8 MEA Science Test

Grade Level Summary Report

State: Maine

Schools and SAUs administered the MEA Science tests to every enrolled student with the following exceptions: students who participated in the alternate assessment for the 2011-12 school year, students for whom a special consideration was granted through the state Department of

Education, and other students for reasons not approved. On this page, and throughout this report, results are only reported for groups of students that are larger than nine (9).

PARTICIPATION SUMMARY	Number			Percentage		
	School	SAU	State	School	SAU	State
Students enrolled			14,388			100
Students tested With an approved accommodation Current LEP Students With an approved accommodation IEP Students With an approved accommodation	Science			Science		
			13,955			97
			1,877			13
			373			3
			101			27
			2,066			15
			1,561			76
Students not tested in MEA			433			3
State Approved			238			55
Alternate Assessment			206			87
Special Consideration			32			13
Other			195			45

PERFORMANCE SUMMARY

State																								
Enrolled	Not Tested Approved	Not Tested Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
14,388	238	195	13,955	3,120	22	6,942	50	2,956	21	937	7	850												

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.



May 2012 - Grade 8 MEA Science Test

State: Maine

Science Results

Proficient with Distinction (Level 4)

The student's work demonstrates in-depth understanding of essential concepts in science, including the ability to make multiple connections among central ideas. The student's responses demonstrate the ability to synthesize information, analyze and solve difficult problems, and explain complex concepts using evidence and proper terminology to support and communicate logical conclusions. (Scaled Score 862-880)

Proficient (Level 3)

The student's work demonstrates a general understanding of essential concepts in science, including the ability to make connections among central ideas. The student's responses demonstrate the ability to analyze and solve routine problems and explain central concepts with sufficient clarity and accuracy to demonstrate general understanding. (Scaled Score 842-860)

Partially Proficient (Level 2)

The student's work demonstrates incomplete understanding of essential concepts in science and inconsistent connections among central ideas. The student's responses demonstrate some ability to analyze and solve problems but the quality of responses is inconsistent. Explanation of concepts may be incomplete or unclear. (Scaled Score 828-840)

Substantially Below Proficient (Level 1)

The student's work demonstrates limited understanding of essential concepts in science and infrequent or inaccurate connections among central ideas. The student's responses demonstrate minimal ability to solve problems. Explanations are illogical, incomplete, or missing. There are many inaccuracies. (Scaled Score 800-826)

	Enrolled	Not Tested Approved	Not Tested Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
School													
2009-10													
2010-11													
2011-12													
Cumulative													
Total													
SAU													
2009-10													
2010-11													
2011-12													
Cumulative													
Total													
State													
2009-10	14,443	247	165	14,031	2,443	17	7,635	54	2,791	20	1,162	8	849
2010-11	14,258	244	183	13,831	2,771	20	7,024	51	2,780	20	1,256	9	849
2011-12	14,388	238	195	13,955	3,120	22	6,942	50	2,956	21	937	7	850
Cumulative													
Total	43,089	729	543	41,817	8,334	20	21,601	52	8,527	20	3,355	8	849

Subtopic	Total Possible Points	Percent of Total Possible Points											
		0	10	20	30	40	50	60	70	80	90	100	
D. The Physical Setting	34							◆					◆ State — Standard Error Bar [§]
D1/D2 Space/Earth	17							◆					
D3/D4 Matter and Energy/Force and Motion	17							◆					
E. The Living Environment	22							◆					

The MEA assesses students' science knowledge based on questions that measure the science accountability content strands highlighted in Maine's 2007 Learning Results: Parameters for Essential Instruction, which can be found at: <http://www.maine.gov/education/lres/pei/index.html>.

[§]The standard error bar indicates how much the percent of points earned could vary if the students were examined multiple times with the same test.



May 2012 - Grade 8 MEA Science Test

Disaggregated Science Results

State: Maine

REPORTING CATEGORIES	State																								
	Enrolled	Not Tested Approved	Not Tested Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
All Students	14,388	238	195	13,955	3,120	22	6,942	50	2,956	21	937	7	850												
Gender																									
Male	7,340	145	107	7,088	1,815	26	3,455	49	1,319	19	499	7	851												
Female	7,045	93	88	6,864	1,304	19	3,486	51	1,636	24	438	6	849												
Not Reported	3	0	0	3																					
Race/Ethnicity																									
Hispanic or Latino	209	2	6	201	26	13	100	50	57	28	18	9	845												
Not Hispanic or Latino																									
American Indian or Alaskan Native	104	1	1	102	18	18	43	42	25	25	16	16	846												
Asian	237	1	2	234	53	23	110	47	51	22	20	9	850												
Black or African American	403	8	12	383	28	7	127	33	114	30	114	30	837												
Native Hawaiian or Pacific Islander	13	1	0	12	3	25	4	33	4	33	1	8	849												
White	13,277	223	173	12,881	2,962	23	6,495	50	2,666	21	758	6	851												
Two or more races	142	2	1	139	29	21	62	45	38	27	10	7	848												
No Race/Ethnicity Reported	3	0	0	3																					
LEP Status																									
Current LEP student	390	7	10	373	7	2	110	29	129	35	127	34	833												
Former LEP student - monitoring year 1	17	0	0	17	4	24	9	53	3	18	1	6	854												
Former LEP student - monitoring year 2	22	0	1	21	6	29	13	62	2	10	0	0	857												
All Other Students	13,959	231	184	13,544	3,103	23	6,810	50	2,822	21	809	6	851												
IEP																									
Students with an IEP	2,359	219	74	2,066	118	6	674	33	810	39	464	22	837												
All Other Students	12,029	19	121	11,889	3,002	25	6,268	53	2,146	18	473	4	852												
SES																									
Economically Disadvantaged Students	6,187	145	133	5,909	742	13	2,787	47	1,697	29	683	12	845												
All Other Students	8,201	93	62	8,046	2,378	30	4,155	52	1,259	16	254	3	854												
Migrant																									
Migrant Students	10	0	0	10	1	10	3	30	1	10	5	50	834												
All Other Students	14,378	238	195	13,945	3,119	22	6,939	50	2,955	21	932	7	850												
Title I																									
Students Receiving Title I Services	1,041	10	12	1,019	88	9	470	46	344	34	117	11	843												
All Other Students	13,347	228	183	12,936	3,032	23	6,472	50	2,612	20	820	6	851												
504 Plan																									
Students with a 504 Plan	504	6	10	488	129	26	232	48	98	20	29	6	851												
All Other Students	13,884	232	185	13,467	2,991	22	6,710	50	2,858	21	908	7	850												

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Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



May 2012 - Grade 8 MEA Science Test

Questionnaire Results

State: Maine

QUESTIONNAIRE ITEMS	State																					
	Students in Each Category	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Students in Each Category	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Students in Each Category	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	%	N	%	N	%	N	%	N	%		%	%	%	%	%		N	%	%	%	%	
Which statement best describes how often and how long your science class meets?																						
A. We meet every day for 45 minutes to an hour.	74	2,366	24	5,077	51	2,037	20	528	5	851												
B. We meet on alternate days for 80 to 90 minutes.	15	434	21	1,013	50	428	21	144	7	850												
C. We meet every day for 45 minutes, plus a longer lab period each week.	3	77	17	184	40	127	27	76	16	845												
D. We have a flexible schedule depending on the activities.	8	167	16	474	46	278	27	106	10	846												
Which statement best describes how you learn science?																						
A. I read a textbook and answer questions and/or take notes and do assignments.	19	430	17	1,174	46	683	27	274	11	847												
B. I work in groups to design and conduct experiments.	14	220	11	889	46	599	31	231	12	844												
C. I do a combination of A and B, mostly A.	40	1,503	28	2,735	50	981	18	216	4	853												
D. I do a combination of A and B, mostly B.	27	894	25	1,956	55	605	17	133	4	853												
How often do you make observations and collect data in science class?																						
A. a few times a week	43	1,146	20	3,010	51	1,325	23	391	7	849												
B. a few times a month	37	1,293	26	2,526	51	920	18	258	5	852												
C. once a month	11	413	28	683	46	299	20	100	7	851												
D. never or almost never	9	204	17	541	46	329	28	106	9	847												
How do you feel about the following statement? <i>"My knowledge of science will be useful to me as an adult."</i>																						
A. strongly agree	20	930	34	1,228	45	443	16	148	5	854												
B. agree	57	1,732	22	3,979	51	1,632	21	422	5	851												
C. disagree	17	331	14	1,230	53	573	25	186	8	847												
D. strongly disagree	5	63	9	328	45	230	32	101	14	843												
Which of the following best describes how you rate yourself as a student in science?																						
A. very good	17	1,029	44	980	42	245	11	77	3	858												
B. good	53	1,699	24	3,795	53	1,363	19	311	4	852												
C. fair	26	302	9	1,773	51	1,054	30	358	10	845												
D. poor	4	27	5	218	38	218	38	110	19	839												
How well do the questions that you have just been given on this MEA test match what you have learned in school about science?																						
A. The questions on the test match what I have learned in science class.	18	803	32	1,150	46	401	16	138	6	854												
B. They match some of what I have learned.	55	1,833	25	3,808	51	1,476	20	359	5	852												
C. They match just a little of what I have learned.	23	382	13	1,590	52	820	27	263	9	847												
D. There is no match.	4	38	7	220	41	186	34	97	18	841												
Which courses do you plan to take before you graduate from high school?																						
A. earth and space science and/or biology	25	500	15	1,764	52	866	26	266	8	847												
B. the course(s) described in A, plus chemistry	22	757	26	1,489	50	530	18	174	6	852												
C. the course(s) described in B, plus physics	23	1,271	41	1,365	44	367	12	113	4	857												
D. a life science and physical science class	30	514	13	2,105	53	1,097	27	293	7	847												

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